Creative Enzymes®

3-Acetylpyridine-Adenine Dinucleotide, Oxidized (APAD)

Cat. No. NATE-0077

Lot. No. (See product label)

Introduction

Description	3-Acetylpyridine adenine dinucleotide is an NAD analog with higher oxidation potential than NAD. It can substitute for NAD as a hydrogen-accepting cofactor in many dehydrogenase reactions. For example lactate dehydrogenase from Toxoplasma, Clonorchis, and Plasmodium, bacterial lipoamide dehydrogenase, as well as mammalian dehydrogenases. This compound can also act as a proton acceptor in various transhydrogenation reactions with NADH or NADPH.
Synonyms	aldehyde reductase; ADH; alcohol dehydrogenase (NAD); aliphatic alcohol dehydrogenase; ethanol dehydrogenase; NAD-dependent alcohol dehydrogenase; NAD-specific aromatic alcohol dehydrogenase; NADH-alcohol dehydrogenase; NADH-aldehyde dehydrogenase; primary alcohol dehydrogenase; yeast alcohol dehydrogenase; EC 1.1.1.1; APAD

Product Information

EC Number	EC 1.1.1.1
CAS No.	86-08-8
Molecular Weight	662.44
Purity	Determined by increase in absorbance at 363 nm on enzymatic reduction with ADH* at pH 10.0 > 92% *ADH = Alcohol dehydrogenase (Horse liver) (EC 1.1.1.1.)
Structure	C22H28N6O14P2
Specificity	Water content: < 8% by Karl Fischer

Storage and Shipping Information

Storage	Keep tightly stoppered in the dark below 5°C. Moisture will reduce the purity. For prolonged storage, keep below-20°C.